

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing of claims in the application:

Listing of the Claims:

Claims 1-22 (canceled).

1 Claim 23 (currently amended): A fibre reinforced  
2 pressurizable structure comprising ~~a-unitized~~ an integrally  
3 formed gas or fluid-tight body having a continuous outer  
4 circumferential surface with a rotation-symmetrical axis  
5 that terminates in axial ends, the body being overwound as  
6 an isotensoide with one or more fibre filaments, the fibre  
7 filaments having a longitudinal axis defined along their  
8 length, wherein the radius of the body outer surface varies  
9 with respect to a the rotation-symmetrical axis, such that  
10 said body outer surface defines at least one concave surface  
11 section spaced apart from the axial ends, wherein each  
12 concave surface section has a local minimum radius, and the  
13 outer surface further defines at least one convex surface  
14 section spaced apart from the axial ends, wherein each  
15 convex surface section has a local maximum radius, wherein  
16 the at least one concave surface section about its entire  
17 outer surface spanning its local minimum radius is  
18 continuously overwound with a fibre filament as an  
19 isotensoide.

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1 Claim 24 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 23, wherein the  
3 fibre filaments overwinding the at least one concave surface

4 section comprise a plurality of substantially straight fibre  
5 filaments forming a hyperboloid.

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1 Claim 25 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 23, wherein the  
3 pressurizable structure is quasi-geodesically overwound in a  
4 continuous fashion.

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1 Claim 26 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 23, wherein the  
3 longitudinal orientation of the fibre filament along a  
4 finite length thereof is oriented substantially  
5 perpendicular with respect to the rotation-symmetrical axis  
6 of the structure.

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1 Claim 27 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 23, wherein the  
3 fibre filaments undergo torsion with respect to the  
4 longitudinal center-line thereof when the pressurizable  
5 structure is in a pressurized state, whereby substantially  
6 one side of the curved fibre circumference remains in  
7 contact with the body in the at least one concave surface  
8 section.

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1 Claim 28 (currently amended): A fibre reinforced  
2 pressurizable structure ~~according to claim 23, characterized~~  
3 in that comprising an integrally formed gas or fluid-tight  
4 body having a continuous outer circumferential surface with  
5 a rotation-symmetrical axis that terminates in axial ends,  
6 the body being overwound as an isotensoide with one or more  
7 fibre filaments, the fibre filaments having a longitudinal  
8 axis defined along their length, wherein the radius of the

9 body outer surface varies with respect to a the  
10 rotation-symmetrical axis, such that said body outer surface  
11 defines at least one concave surface section spaced apart  
12 from the axial ends, wherein each concave surface section  
13 has a local minimum radius, and the outer surface further  
14 defines at least one convex surface section spaced apart  
15 from the axial ends, wherein each convex surface section has  
16 a local maximum radius, wherein the at least one concave  
17 surface section about its entire outer surface spanning its  
18 local minimum radius is continuously overwound with a fibre  
19 filament as an isotensoide, and the fiber filaments are  
20 twisted longitudinally during fabrication of the structure  
21 so that one circumferential side of the fiber filaments are  
22 in contact with the at least one concave surface section and  
23 the other circumferential side of the fiber filaments are in  
24 contact with the at least one convex surface section.

Claims 29-38 (canceled)

1 Claim 39 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 23, wherein the  
3 body is flexible, i.e., non-rigid, and formed about the  
4 fibre filaments.

1 Claim 40 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 23, whereby the  
3 axial length of at least one axial section of the  
4 pressurizable structure is variable with respect to the  
5 longitudinal axis of the pressurizable structure.

1 Claim 41 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 23, wherein at

3 least one axial section of the pressurizable structure is  
4 pivotable with respect to the longitudinal axis of the  
5 pressurizable structure.

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1 Claim 42 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 23, wherein at  
3 least one axial section of the structure is pivotable with  
4 respect to an axis, wherein the axis is orthogonal to the  
5 longitudinal axis of the pressurizable structure.

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1 Claim 43 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 40, wherein at  
3 least one axial section of the pressurizable structure  
4 comprises a combination of at least two of the following  
5 technical elements; (i) at least one axial section of the  
6 pressurizable structure is pivotable with respect to the  
7 longitudinal axis of the pressurizable structure; (ii) the  
8 axial length of the at least one axial section of the  
9 structure is variable with respect to the longitudinal axis  
10 of the pressurizable structure; (iii) the axial section of  
11 the structure is pivotal with respect to an axis, wherein  
12 the axis is orthogonal to the longitudinal axis of the  
13 pressurized structure.

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1 Claim 44 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 23, wherein the  
3 pressurizable structure comprises an array of a plurality of  
4 pressurizable fuel tanks or pipelines.

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1 Claim 45 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 24, wherein the  
3 pressurizable structure further comprises a spring that

4 provides a load-displacement function.

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1 Claim 46 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 23, wherein the  
3 pressurizable structure further comprises an actuator for  
4 applications in elevators, excavators and industrial robots,  
5 among others.

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1 Claim 47 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 23, wherein the  
3 pressurizable structure provides a shoring or strutting  
4 function in combination with construction beams.

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1 Claim 48 (previously presented): A fibre reinforced  
2 pressurizable structure according to claim 47, wherein the  
3 shoring or strutting functions in combination with  
4 construction beams are adaptable to the Eigen-frequencies of  
5 the pressurizable structure.